

RAMA DEVI WOMEN'S UNIVERSITY

Vidya Vihar, Bhubaneswar-751022

SEMINARS/CONFERENCES/WORKSHOPS/WEBINARS CONDUCTED BY DEPARTMENT OF BIOTECHNOLOGY

1. Event: Workshop

2. Title of the Event: Three Days Hands-on Workshop on Molecular and Microbial Techniques: Bridging Concepts with NEP-2020 curriculum

3. Date & Duration: 21st – 23rd August 2025

4. Objective/Motivation of the Event:

The objective of the Three-Day Hands-on Workshop on Molecular and Microbial Techniques: Bridging Concepts with NEP-2020 Curriculum is to provide participants with practical exposure to fundamental techniques in molecular biology and microbiology, thereby enhancing their understanding of core scientific concepts through experiential learning. This workshop is motivated by the principles of the National Education Policy (NEP) 2020, which emphasizes skill-based, inquiry-driven, and holistic education. By combining theory with hands-on practice, the event aims to bridge the gap between classroom learning and laboratory application, fostering critical thinking and research-oriented skills among students and educators.

Participants will gain experience in essential techniques such as DNA extraction, PCR, gel electrophoresis, microbial culturing, and staining, all of which are vital in modern biological sciences. The workshop also seeks to promote interdisciplinary learning and prepare students for advanced studies and careers in the life sciences. Overall, this initiative is designed to nurture scientific temper, technical competence, and a deeper appreciation for the integration of molecular and microbial techniques within the framework of NEP-2020.

- **5. Theme of the Event:** Integration of laboratory techniques with the educational vision of NEP-2020 for holistic scientific learning.
- 6. Funding Agency: Department of Higher Education, Govt. of Odisha
- 7. Funds Received (In Rs.): Rs. 1,48,300/-
- 8. Technical Session (Details)
 - i. No. of Technical sessions conducted: 03

9. Title of the Technical sessions:

Session 1: Role of Microbial Techniques in Diagnostics & Industry

Session 2: Proteomics Technology - Applications in Biotechnology & Life Sciences

Session 3: Bioinformatics and its role in improvement of living organisms

10. Chairperson of the technical session:

Technical session 1: Prof. Sakti Kanta Rath Technical session 2: Prof. Sujata Mohanty Technical session 3: Prof. Sasmita Mohanty

Resource persons (Details):

Day 1: Prof. Nilotpala Pradhan, Senior Principal Scientist & Professor (AcSIR), CSIR-IMMT. Bhubaneswar

Day 2 : **Dr. Bimal Prasanna Mohanty**, Professor of Biochemistry, SOA University & Former Asst. Director General (ICAR), New Delhi

Day 3 : **Dr. Jitendra Kumar Sundaray,** Principal Scientist & Head, Fish Genetics & Biotechnology Division, ICAR-CIFA, Bhubaneswar

11. Participants Details (Indicate Numbers only)

- i. Scientists/Faculty/Members of industry: 35
- ii. Ph. D. Scholars: 30

12. Outcomes of the Event:

The workshop commenced with an enriching inaugural session marked by warm felicitation, ceremonial lamp lighting, and insightful addresses by esteemed dignitaries. Prof. Nilotpala Pradhan's lecture Talk on the role of Microbial Techniques in Diagnostics and Industry highlighted the critical applications of microbiology in modern healthcare and industrial processes. Lab session on microbial techniques helped students gain hands-on skills in plating, culturing, sterilization, and Gram staining, enhancing their understanding of microbial handling and identification techniques. Dr. Bimal Prasanna Mohanty lecture on Proteomics Technology - Applications in Biotechnology & Life Sciences showcased the key role of Proteomics in advancing drug development, disease research, and biotechnology. The lab session on molecular biotechnology tools helped the participants to gain hands-on experience, improving skills in techniques like DNA isolation, polymerase chain reaction and gel electrophoresis, which are essential for genetic analysis and biotechnology applications. Dr. Jitendra Kumar Sundaray's talk on Bioinformatics and its role in improvement of living organisms highlighted how bioinformatics accelerates genetic research, breeding programs, and disease understanding, leading to innovations in agriculture, medicine, and environmental science. The lab session on bioinformatics tools and plant tissue culture highlighted the importance of integrating computational analysis with practical biotechnology. Participants learned to use bioinformatics software for genetic data analysis and applied plant tissue culture techniques to propagate plants. The event ended with the valedictory session, expressing gratitude to the organizers, speakers, and participants, highlighting key takeaways from the event and encouraging continued learning and collaboration in the field. The session was graced by Prof. Chandi Charan Rath, Vice Chancellor of Rama Devi Women's University, who commended the initiative and encouraged continued academic excellence. Prof. Raj Kumar Joshi, Convener and Head of the Department of Biotechnology, emphasized the need for experiential learning in biotechnology education through workshops which play a pivotal role

in nurturing scientific curiosity, developing technical competencies, and fostering collaboration among academia, research, and industry.

13. Recommendations (if any):

The organizing committee was very pleased with the overall execution of the event in a smooth and successful manner.

14. Selected Photographs: Enclosed









Inaugural session of the Three-Day Workshop on Molecular and Microbial Techniques



Glimpses from the technical sessions of Day 1, 2, and 3 of the Hands-on Workshop on Molecular and Microbial Techniques, featuring expert lectures and active participant engagement.



Lab sessions from Day 1–3 of the workshop, highlighting hands-on training in molecular and microbial techniques.







Valedictory session of the Three-Day Workshop on Molecular and Microbial Techniques



Group photo of the participants, research scholars, faculty members, and the organizing committee of the Hands-on Workshop on Molecular and Microbial Techniques.

Three Days Hands-on workshop on Molecular and Microbial Techniques: Bridging concepts with NEP-2020 curriculum 21st -23rd August, 2025

LIST OF PARTICIPANTS

Sl. No.	NAME	AFFILIATION	Signature
1	Saraswati Majhi	Shailabala Women's Autonomous College	Surcas with Majhi
2	Ananda Rukmini	Shailabala Women's Autonomous College	aranda Rixmini
• 3	Subhasis Sahoo	Shailabala Women's Autonomous College	Subhasis Sahoo.
4	Dr Prasanta Kumar Samantray	Shailabala Women's Autonomous College	Porrufa a Cumity
. 5	Dr.A.K.Khillar	Shailabala Women's Autonomous College	A.K. Khillar
6	Sangit Kumar Nanda	Bhuban Women's Degree College	Douget Numero
7	Dr Sagorika panda	Dhenkanal Mahila Mahavidyalaya	Sagarika Panilos
8	Dr. Shidharth Sankar Ram	Dhenkanal Mahila Mahavidyalaya	Sam. 21/08/23
9	Leena Gantayat	Dhenkanal Mahila Mahavidyalaya	Leenalanteryal
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• 11	Matru Prasad Mohanty	Dhenkanal Mahila Mahavidyalaya	Matin Praised Mehanty
12	Malabika Dwivedee	G.B.Womens College,Kaduapada, Jagatsinghpur	Malabaka Dwevedy
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16	Subrat Sahani	Anandapur College	Bus nat Soher
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18	Priyadarshni Sahu	Angul Mahila Mahavidyalaya, Angul	buyadavishni Salu
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<u>20</u>	Akankshya Dash	Govt. Womens College, Keonjhar	Skankshys.
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27	Rushda Aarif	Rama Devi Women's University	Rushela
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29	Sunita Sahoo	Rama Devi Women's University	Wuita
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31	Sulagna Dash Mohapatra	Rama Devi Women's University	Sulagna Dash Mohabatra
32	Ankita Sahu	Rama Devi Women's University	Ankita Sahu
33	Shubhranshee Sanshlishta Sahu	Rama Devi Women's University	Shulin
34	Richa Sharma	Rama Devi Women's University	759
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41	Pratikhya Nanda	Rama Devi Women's University	Pratiche Vanda
42	Priyadarshini Padhi	Rama Devi Women's University	Prizadanskimi Padhi
43	Nitu Sahoo	Rama Devi Women's University	Nitu Jahoo
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45	Smaranika Mania	Rama Devi Women's University	Smararithe Manis
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47	Sonali Priyadarshini	Rama Devi Women's University	Sonali prujadorskim

48	Madhumita Sahoo	Rama Devi Women's University	Madhumita Schoo
49	Subhadarsini Mohanty	Rama Devi Women's University	Subhadakini Wohauty
50	Ankuri Benya	Rama Devi Women's University	Ankeure Benera
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52	Sumitra Priyadarsini Ojha	Rama Devi Women's University	Sumitrea Porigadarrinoja
53	Prajna Sarita Sethy	Rama Devi Women's University	Picagne Sanita Sother
54	Sailaja Priyadarsini	Rama Devi Women's University	Sailaja Prinjadarin
55	Sonali Nayak	Rama Devi Women's University	Sonali Nayak
56	Sunanda Swain	Rama Devi Women's University	Suranda Swain
57	Sujata Hota	Rama Devi Women's University	Sujata Hota
58	Alisha Nayak	Rama Devi Women's University	Alisha Nayar
59	Madhusmita Mohanty	Rama Devi Women's University	Madhumint & Moharty
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64.	Dr Rajarni Salos	Leetwa, KNWC, BBSR	218/3
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